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**Abstract of the Disclosure**

In order to facilitate control of a circulating gas, in a processing apparatus 100 having a showerhead 200 for supplying a processing gas into a processing chamber via a plurality of gas supply holes, a turbo pump 120 for evacuating the processing gas from the processing chamber 110 and a circulating gas piping 150 for returning at least a portion (circulating gas Q2) of the exhaust gas evacuated from the processing chamber by the turbo pump to the showerhead, the showerhead is provided with a primary gas supply system that supplies a primary gas Q1 supplied from a gas source 140 into the processing chamber via a plurality of primary gas outlet holes h1 and a circulating gas supply system that supplies the circulating gas into the processing chamber via a plurality of circulating gas supply holes h2, with the primary gas supply system and the circulating gas supply system constituted as systems independent of each other. Since the primary gas and the circulating gas are allowed to become mixed only in the processing chamber, the circulating gas can be controlled with a greater degree of ease without having to implement pressure control.

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